

**REMARKS**

Applicants previously presented claims 1-32 and 34-35 for examination. In the above-identified Office Action, all of the claims were rejected.

Applicants appreciate the Examiner's comments in her Office Action for the above-identified application. For the reasons to be stated below, however, Applicants respectfully traverse the Examiner's rejections. Reconsideration is respectfully requested based on the following remarks.

**103 Rejection over Hashimoto and Walker**

Claims 1-13 and 15-32 were rejected under 35 U.S.C. 103(a) as being unpatentable over UK Patent Application GB No. 2 265 032 A to Hashimoto et al. (hereinafter referred to as "Hashimoto") in view of U.S. Patent No. 6,324,520 to Walker et al. (hereinafter referred to as "Walker"). Applicants respectfully disagree.

In general, Hashimoto pertains to an inventory management program for combination goods, which could include a certain number of element goods. In Hashimoto, an operator determines how to resolve an insufficient number of element goods that constitute the combination goods.

Hashimoto does not teach or suggest numerous limitations in Applicants' claimed invention. For example, Hashimoto's apparatus does not operate over a computer network. Hashimoto states: "Fig. 1 shows the hardware configuration of an inventory management apparatus for combination goods, to which the present invention is applied. The illustrated apparatus includes a central processing unit ... a hard disk ... a keyboard ... a display ... and a printer...."<sup>1</sup> The apparatus in Hashimoto is a computer but does not teach or suggest any need for a computer network.

Hashimoto's teachings on product substitutions are also significantly different from Applicants'. Hashimoto's substitution processes are manual. They require an operator. One approach depends on what the operator knows. Specifically, Hashimoto states: "[T]he operator selects a substitute good for substituting the selected element good (the good to be substituted that has a stock shortage) by using the operator's own memory

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<sup>1</sup> From the last paragraph on p. 7 to the end of the first paragraph on p. 8 of Hashimoto.

and/or a suitable document, and inputs a good code "i" of a selected substitute element good (step 145)."<sup>2</sup>

Another substitution approach in Hashimoto depends on what the operator selects from a list in Hashimoto's apparatus. For this approach, Hashimoto states: "[A] plurality of substitute good candidates (possible substitutes) for substituting such an element good may be previously selected so as to prepare, in the hard disk 2, a substitute goods file storing combinations of goods codes of substitute good candidates, and thus to allow the CPU 1 to display substitute good candidates which can be used."<sup>3</sup> Then, "[t]he operator selects, from among the substitute good candidates displayed, a suitable substitute good candidate B, such as one having the maximum amount of stock, by suitably moving the cursor, inputs an assignment number of the selected candidate B, and depresses a 'complete' key."<sup>4</sup>

In both substitution approaches, Hashimoto describes a manual process that requires the operator to input certain keys to substitute one good for another. Moreover, in Hashimoto, the manual approaches to substitute an element good in an order just depends on that order. The approaches do not take into consideration any other order.

Thus, the Office Action is correct to state that 'Hashimoto does not expressly disclose another customer order; automatically substituting; without intervention from a human operator; and an automated computer process.'<sup>5</sup> Not only are these features not disclosed, they are also not suggested by Hashimoto.

To remedy the deficiency, the Office Action introduced Walker.

Walker pertains to a dispensing device, such as a vending machine. According to Walker, a dispensing device is defined as a device capable of receiving an amount of money and outputting one or more products, where a product is defined as an item or a service sold through a dispensing device.<sup>6</sup>

Walker does not teach or suggest numerous limitations in Applicants' claimed invention. First, Walker's dispensing device receives a customer request to dispense a

<sup>2</sup> The last six lines on page 30 of Hashimoto.

<sup>3</sup> The last two lines on page 33 to the first 4 lines on page 34 of Hashimoto.

<sup>4</sup> The first 6 lines on page 35 of Hashimoto.

<sup>5</sup> The first two lines from the first full paragraph on page 3 of the Office Action.

<sup>6</sup> Col. 3, lines 61-65 of Walker.

product. This is different from Applicants' claimed invention of a computer-implemented method receiving a customer order via a computer network.

Second, Walker's dispensing machine dispenses a product, which is defined by Walker as an item or a service sold through the machine<sup>7</sup>. This is different from Applicants' claimed invention of receiving an order that includes more than one ordered item, with at least one ordered item relating to an ordered quantity larger than one of a particular item of inventory. It is not clear how Walker's dispensing machine could even be able to accept such a customer order.

Third, when Walker's dispensing machine determines what product to dispense to fulfill a customer request, Walker does not analyze another customer order that has not yet been totally delivered. Walker is simply a dispensing machine, like a vending machine. A customer can stand in front of the machine to try to get a product, such as a can of soda. Nowhere has Walker taught or suggested that in fulfilling the customer request for the can of soda, Walker needs to analyze an order by another customer who just puts money into a vending machine and is still waiting for her can of soda.

To support its position that Walker teaches this aspect of considering another customer order, the Office Action cited three sections in Walker—col. 3, lines 8-12; col. 4, lines 25-34; and col. 9, lines 9-27.<sup>8</sup>

The first section (col. 3, lines 8-12) in Walker pertains to determining a substitute product for a first product by measuring a demand for each of a number of products. After determination, a "substitute product identifier corresponding to the substitute product is stored for the first product."<sup>9</sup> "The substitute product identifier is meant to identify a product to be offered when an initial product selection is not available. For example, referring to record 320 of FIG. 3, if product A1 is selected by a purchaser and is not available, then the machine will offer product B3 as a suggestive sell."<sup>10</sup> In this section, Walker describes predetermining a substitute product for the first product based on the demand for a number of products. The demands are historical data. They are not the demands of an order that has not yet been fulfilled. Thus, this section of Walker does

<sup>7</sup> Col. 3, lines 64-65 of Walker.

<sup>8</sup> The first to the second line of the first full paragraph on p. 4 of the Office Action.

<sup>9</sup> Col. 3, line 12-14 of Walker.

<sup>10</sup> Col. 7, lines 44-49 of Walker.

not teach or suggest, in fulfilling a customer order, the consideration of another customer order that has not yet been totally delivered.

The second section (col. 4, lines 25-34) in Walker pertains to defining two terms, and they are average selection time and demand. Average selection time is defined as "An amount of time measured by the dispensing device which is based on an average measured time between one of (1) a detection of a purchaser and a receipt of an amount of money from the purchaser, (2) a detection of a purchaser and a receipt of a selection from the purchaser, and (3) a receipt of an amount of money from the purchaser and a receipt of a selection from the purchaser." Demand is defined as "A measurement of the number of times the product was selected for purchase."

The third section (col. 9, lines 9-27) in Walker pertains to its figure 5, which displays a demand table 111. The first column 501 provides a list of identifiers for products. Each entry corresponds to a type of product offered by the dispensing device 100, or to a rack in the device on which the type of product is stored. For each identifier, the second column 502 identifies its average time for receipt of credits; the third column 503 identifies its average selection time; and the fourth column 505 identifies its current average demand rate.

Regarding the average time for receipt of credits field 502, each entry provides for a product, the average amount of time taken by purchasers to input an amount of credits after the detection of the customer by the dispensing device.

Regarding the average selection time field 503, each entry provides for a product, the average amount of time taken by purchasers to select the product.

Regarding the current average demand rate field 505, each entry provides, for a product, its current rate of demand, which is determined by measuring the number of times the product was selected over an amount of time.

The information in the average time for receipt of credits field 502, the average selection time field 503, and the current average demand rate field 505 are used by the dispensing device to determine a time after which to offer a suggestive sell.<sup>11</sup> These averages are calculated based on historical data. For each of these averages, they are based on customer orders that have already been filled, with products already delivered

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<sup>11</sup> Col. 9, lines 24-47 of Walker.

by the dispensing device. Accordingly, none of these sections teach or suggest, in fulfilling a customer order, the consideration of another customer order that has not yet been totally delivered.

While it is permissible to modify a reference's disclosure in the examination of patent applications, such modifications are not allowed if they are prompted by Applicants' disclosure, rather than by a reasoned analysis of the prior art and by suggestions provided therein.

Based on the foregoing, given that both Hashimoto and Walker fail to teach or suggest numerous features in the independent claims 1, 15, 23 and 29, it is submitted that the independent claims 1, 15, 23 and 29 are patentably distinct from Hashimoto and/or Walker. In addition, it is submitted that dependent claims 2-13, 16-22, 24-28, 30-32 are also patentably distinct for at least the same reasons.

#### 103 Rejection over Hashimoto, Walker and Brinkley

Claims 14 and 34-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Walker and U.S. Patent No. 5,963,919 to Brinkley et al. (hereinafter referred to as "Brinkley"). Applicants respectfully disagree.

Brinkley pertains to an inventory management strategy operated by a computer (110 shown in figure 1) that combines multiple management strategies. Based on the strategies, just enough inventory is maintained to satisfactorily fulfill customer orders without over-stocking. Brinkley does not teach or suggest substituting one product with another. Instead, Brinkley assumes products in an order to be fixed, and devises appropriately inventory management techniques based on the order.

Regarding features in claim 34, Hashimoto does not teach a computer network; Hashimoto's substitution process is a manual process requiring an operator to input certain keys to substitute one good for another; and Hashimoto's substitution for an order does not depend on another order. As to Walker, its dispensing device does not receive a customer order via a computer network; its dispensing device does not seem to be able to receive a plurality of such orders; Walker's dispensing device does not seem to be able to receive an order including more than one ordered item, with at least one ordered item having an ordered quantity larger than one for a particular item of merchandise; and

Walker does not analyze a plurality of customer orders that have not been fulfilled to determine the product to dispense to a customer. All of these features are likewise not taught or suggested by Brinkley.

The Office Action asserted that Brinkley teaches aggregating a selected portion of the received customer orders or the plurality of customer orders based on 3 sections in Brinkley, namely, col. 4, lines 35-41; col. 4, lines 55-61; and col. 5, lines 9-15.<sup>12</sup> Applicants respectfully disagree, and submit that these sections cover inventory replenishment and not product substitution.

Brinkley generally describes techniques to select one inventory management strategy (out of six) for different inventory items. Brinkley's techniques address four questions, and they are "Who, When, How, and How much." The three sections the Office Action cited are on three of the four questions. The first section (col. 4, lines 35-41) pertains to the "Who" question, namely, identifying the entity responsible for initializing replenishment of a particular inventory item. The second section (col. 4, lines 55-61) pertains to the "When" question, namely, identifying the timing of replenishing the stock, such as upon demand, as shown by a customer order. The third section (col. 5, lines 9-15) pertains to the "How Much" question, namely, identifying the order quantity once a decision to replenish has been made, such as ordering an amount to return inventory to a desired level after depletion. The Office Action has not cited the "How" section (col. 4, line 62 to col. 5, line 8), which identifies the mechanics of the replenishment process. None of these sections pertains to product substitution.

Thus, Brinkley cannot overcome the deficiencies of Hashimoto and Walker noted above, either due to features in claim 34 (and its dependent claim 35), or features in claim 1, which claim 14 depends on. It is submitted that neither Hashimoto, Walker nor Brinkley, individually or in any combination, teaches or suggests the invention in claims 14, 34 and 35.

Regarding the remaining reference cited by the Examiner, since it has not been applied against any of the claims and do not appear properly applicable thereto, no further mention thereof will be made.

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<sup>12</sup> First full paragraph on page 6 of the Office Action.

Additional limitations recited in the independent claims or the dependent claims are not further discussed as the above-discussed limitations are clearly sufficient to distinguish the claimed invention from Hashimoto, Walker and Brinkley. Thus, it is respectfully requested that the Examiner withdraw the rejections of claims 1-32, 34 and 35 under 35 U.S.C. 103(a).

In the event that the Examiner, upon reconsideration, determines that an action other than an allowance is appropriate, the Examiner is requested and authorized to contact the undersigned prior to taking such action, if the Examiner feels that such a telephone call will advance the prosecution of the present application.

Respectfully submitted,

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